

Appl. No.: 09/851,404  
Amdt. dated 11/02/2004  
Reply to Official Action of July 2, 2004

### REMARKS/ARGUMENTS

Applicants appreciate the thorough examination of the present application, as evidenced by the first Official Action. The first Official Action rejects Claims 1, 11, 14, 18-25 and 29-42 under 35 U.S.C. § 102(b) as being anticipated by the article Wei-Ying Ma et al., *A Framework for Adaptive Content Delivery in Heterogeneous Network Environments*, presented at Multimedia Computing and Networking (MMCN00), San Jose, California, USA, 2000 (hereinafter referred to as the "Ma publication"). The Official Action also rejects Claims 15-17, 35-37, 39 and 40 under 35 U.S.C. § 103(a) as being unpatentable over the Ma publication. The Official Action rejects Claims 2-10, 12, 13 and 26-28 under 35 U.S.C. § 103(a) as being unpatentable over the Ma publication, in view of various combinations of U.S. Patent No. 6,161,140 to Moriya; Marti A. Hearst, *TextTiling: Segmenting Text into Multi-Paragraph Subtopic Passages*, in COMPUTATIONAL LINGUISTICS, 33-64 (1997) (hereinafter the "Hearst publication"); U.S. Patent No. 6,738,951 to Weiss et al.; U.S. Patent No. 6,012,074 to Lucas et al.; and U.S. Patent No. 6,300,947 to Kanevsky.

Applicants respectfully submit that the claimed invention of the present application is patentably distinct from the Ma publication, Hearst publication, Moriya patent, Weiss patent, Lucas patent and Kanevsky patent, taken individually or in combination. Nonetheless, to advance prosecution of the present application, Applicants have amended independent Claims 1, 36, 38, 41 and 42, and accordingly dependent Claims 10, 17, 18, 19, 21 and 25 to more clearly define the claimed invention. More particularly, Applicants have amended independent Claim 1, and similarly independent Claims 36, 38, 41 and 42, to include the recitation of dependent Claim 18, defining performance of content as comprising presentation of content on a display for viewing. Accordingly, Applicants have cancelled dependent Claim 18, and amended 10, 17, 18, 19, 21 and 25, in line with the amendments to independent Claims 1, 36, 38, 41 and 42. As explained below, Applicants respectfully submit that the claimed invention of amended independent Claims 1, 36, 38, 41 and 42, and by dependency Claims 2-17, 19-35, 37, 39 and 40, is patentably distinct from the Ma publication, Hearst publication, Moriya patent, Weiss patent, Lucas patent and Kanevsky patent, taken individually or in combination. Thus, in light of the

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amendments to the claims and the remarks presented herein, Applicants respectfully request reconsideration and allowance of all of the pending claims of the present application.

The Ma publication discloses a framework for adaptive content delivery in heterogeneous environments that include devices with relatively limited display capability, storage, processing power and network access. In this regard, as defined by the Ma publication, adaptive content delivery relates to "transform[ing] Web content and delivery schemes according to viewers' heterogeneous and changing conditions to enable universal access." Ma Publication at pp. 1-2. The Ma publication discloses five categories of content adaptation technologies that the authors believe are useful for adaptive content delivery. The five categories are summarized in Table 1 of the Ma publication, and include information abstraction, modality transformation, data transcoding, data prioritization and purpose classification. *Id.* at pp. 10-11.

Information abstraction, as disclosed by the Ma publication, reduces the bandwidth requirement for delivering content by "compressing the data, while preserving the information that has highest value to the user." *Id.* at p. 3. Modality transformation relates to "transforming content from one mode to another," such as by transforming video data to image data. *Id.* Data transcoding is disclosed as including the conversion of a data format of content, such as by converting GIF image data to JPEG image data. Data prioritization relates to distinguishing more important parts of data from less important parts so that, for example, less important parts of the data can be dropped or otherwise delivered after the more important parts of the data. Finally, purpose classification relates to classifying the purpose of media objects such that redundant objects can be removed or prioritized according to their importance.

Amended independent Claim 1 of the present application recites a method that includes receiving an electronic document represented by serial data, the serial data including content of the document and defining an order in which respective portions of the content are to be presented on a display for viewing. After receiving the serial data representing the electronic document, the serial data is analyzed. Reorganization information for use in delivering the portions of the content is then generated. In this regard, the reorganization information enables presentation of the portions in an order different from the order defined by the serial data.

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In contrast to the method of amended independent Claim 1, the Ma publication does not teach or suggest generating reorganization information enabling presentation of portions of content in an order different from an order defined by serial data that contains content of a document. As explained above, the Ma publication discloses technologies for adaptive content delivery, including information abstraction, modality transformation, data transcoding, data prioritization and purpose classification. None of the disclosed adaptive content delivery technologies, however, include reorganizing portions of content such that portions of the content can be presented in an order different from that defined by serial data representing the content. As disclosed by the Ma publication, the information abstraction technique includes compression of data, modality transformation includes transforming content from one form (e.g., video) to another form (e.g., image), data transcoding includes converting content from one format (e.g., GIF image) to another format (e.g., JPEG image). As also disclosed by the Ma publication, data prioritization includes dropping or delaying delivery of less important parts of data, and purpose classification includes removing redundant media objects or otherwise prioritizing redundant objects according to their importance such that the prioritization can deliver those objects accordingly.

In data prioritization, it could be suggested that the Ma publication relates to delivery, and thus presentation, of more important parts of data before less important parts. Read in context, however, even in the case of data prioritization, portions of the data are presented in the same order in which such portions are defined to be presented. That is, portions of the data are presented on a display for viewing in the same order as defined by serial data that contains the content. To further illustrate, the Ma publication explains that low-resolution images can be prioritized as important data and delivered first. Less important data from which high-resolution images can be reconstructed from the low resolution images can then be dropped or delivered after the more important. Thus, less important data is not delivered at all, or delivered in the same order as defined by the image such that the high-resolution image can be reconstructed from the more important and less important data. In either event, the Ma publication does not teach or suggest generating reorganization information enabling presentation of the portions of

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the content in an order different from the order defined by serial data representing the content, as recited by amended independent Claim 1.

To further illustrate the distinction between the invention of amended independent Claim 1 and the Ma publication, consider an electronic document including content of portions A, B, C and D. Also consider that the document is represented by serial data that defines the order in which the portions of the content are to be presented on a display for viewing. That is, the serial data defines the order A, B, C and D. In such an instance, in accordance with the invention of amended independent Claim 1, reorganization information can be generated that enables presentation of the portions of the content in the order C, D, B and A (i.e., in an order different from the order defined by the serial data – A, B, C and D).

Continuing the above example, in accordance with the Ma publication, consider that the content has been prioritized in the order C, D, B and A (the same order for which the reorganization information enabled presentation). In contrast to the claimed invention of amended independent Claim 1, the Ma publication proscribes merely delivering the more important portions, such as C and D, while dropping the less important portions, such as B and A. In this instance, the content is presented as portions C and D, which although not including portions A and B, is still the order defined by the serial data representing the content. Alternatively, the Ma publication proscribes delivering the more important portions and then the less important portions, such as in the order C, D, B and A. Even in this instance, although delivered in an order separate from that defined by the serial data, the portions are still presented for viewing in the order delivered by the serial data. That is, the portions are still presented for viewing in the order A, B, C and D. See Ma publication at p. 3 (explaining examples of delivering content in order of priority in the context of layered coding and multi-resolution compression). To summarize, then, the claimed invention of amended independent Claim 1 enables presentation of the content for viewing in the order C, D, B and A. The Ma publication, on the other hand, enables presentation of the content for viewing as C and D, or alternatively as defined, i.e., A, B, C and D.

Applicants therefore respectfully submit that the claimed invention of amended independent Claim 1 is patentably distinct from the Ma publication. Like the Ma publication,

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none of the Hearst publication, Moriya patent, Weiss patent, Lucas patent and Kanevsky patent, individually or in combination, teach or suggest generating reorganization information enabling presentation of portions of content in an order different from an order defined by serial data that contains content of a document, as recited by amended independent Claim 1. Applicants therefore respectfully submit that none of the Ma publication, Hearst publication, Moriya patent, Weiss patent, Lucas patent and Kanevsky patent, individually or in combination, teach or suggest the claimed invention of amended independent Claim 1, and by dependency Claims 2-17 and 19-35. Thus, Applicants respectfully submit that the rejection of independent Claim 1 and dependent Claims 11, 14, 19-25 and 29-35, under 35 U.S.C. § 102(b) as being anticipated by the Ma publication; the rejection of dependent Claims 15-17 and 35 under 35 U.S.C. § 103(a) as being unpatentable over the Ma publication; and the rejection of dependent Claims 2-10, 12, 13 and 26-28 under 35 U.S.C. § 103(a) as being unpatentable over the Ma publication, in view of various combinations of the Hearst publication, Moriya patent, Weiss patent, Lucas patent and Kanevsky patent, are overcome.

Applicants also respectfully submit that amended independent Claims 36, 38, 41 and 42 recite subject matter similar to that of amended independent Claim 1, and are therefore patentably distinct from the Ma publication, Hearst publication, Moriya patent, Weiss patent, Lucas patent and Kanevsky patent, taken individually or in combination, for at least the same reasons given above with respect to amended independent Claim 1. In this regard, amended independent Claims 36, 38, 41 and 42 recite generating or the generation of reorganization information enabling presentation of portions of content in an order different from an order defined by serial data that contains content of a document, as recited in amended independent Claim 1. Applicants respectfully submit, then, that the rejection of independent Claims 36, 38, 41 and 42, and dependent Claims 37, 39 and 40, under 35 U.S.C. § 102(b) as being anticipated by the Ma publication; and the rejection of independent Claim 36, and dependent Claims 37, 39 and 40 under 35 U.S.C. § 103(a) as being unpatentable over the Ma publication, are overcome.

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### CONCLUSION

In view of the amendments to the claims and the remarks presented above, Applicants respectfully submit that the present application is in condition for allowance. As such, the issuance of a Notice of Allowance is therefore respectfully requested. In order to expedite the examination of the present application, the Examiner is encouraged to contact Applicants' undersigned attorney in order to resolve any remaining issues.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,




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Sarah B. Simmons

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